PUBLIC HEALTH REPORTS

VOL. 34 DECEMBER 5, 1919 No. 49

COORDINATION AND EXPANSION OF FEDERAL HEALTH ACTIVITIES.[1]

By B. S. WARREN, Assistant Surgeon General, United States Public Health Service.

In the discussion of the coordination and expansion of Federal health activities, I believe a brief historical outline of their development will furnish the best point of departure. Until 1879 the Marine Hospital Service exercised practically all of the Federal health functions. In that year an act was passed creating a National Board of Health to continue in force for four years. This board ceased to function in 1882 because Congress failed to appropriate money for its maintenance. The act creating the board was repealed in 1893. When the National Board of Health ceased to function in 1882, the Marine Hospital Service, under authority of the act of 1878, assumed Federal health functions. The epidemic fund was first authorized in 1882. Other laws were passed expanding the health functions of the Marine Hospital Service, the most important of which were the act of 1890 to prevent the introduction of contagious diseases from one State to another and the act of 1893 granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service.

This was the stage of development when I was assigned to duty in the Bureau of the Marine Hospital Service during the period of 1900–1903. In 1901 I had the honor of assisting former Surgeon General Wyman in the preparation of a bill changing the name of the "Marine Hospital Service" to the "United States Health Service." After many months of anxious work we had the great pleasure of seeing this bill enacted into law; but owing to internal service considerations, the name was changed to "United States Public Health and Marine Hospital Service." Congress continued to expand the public health functions of the Service. In 1912, under Surgeon General Blue's direction, I had the honor of again being of some assistance in obtaining the passage of the act which changed the name of the Service to the "United States Public Health Service" and provided for it broad investigative authority.

[1] Read at the forty-seventh annual meeting of the American Public Health Association, held at New Orleans, La., Oct. 27-30, 1919.

From the above brief outline of the development of the Public Health Service it is clear that Congress intended to make of it the principal Federal health agency. Congress, however, has authorized other departments and bureaus to perform certain health functions. The principal ones among these are the Bureau of Chemistry, Department of Agriculture; the Children's Bureau and Bureau of Labor Statistics, Department of Labor; Bureau of the Census, Division of Vital Statistics, Department of Commerce; the Bureau of Mines, Department of the Interior; and the Interdepartmental Social Hygiene Board.

There has been considerable criticism of the scattering of health agencies among so many of the executive departments, even by Congress itself; in fact, Congress has directed that a report be made of the health activities performed by all departments.

Coordination of Federal Health Activities.

A review of the laws relating to Federal health activities will show that the Public Health Service has all of the authority to investigate the diseases of man and to control infectious and contagious diseases, which under the Constitution can be conferred by Congress upon any Federal agency whatsoever. The only limitations are constitutional, and those set by the appropriations and the available supply of men and women trained in preventive medicine.

Up to the present time Congress has appropriated to the Public Health Service for the fiscal year ending June 30, 1920, $8,338,470, of which about $3,000,000 is for public health work. In addition it has imposed upon the Service the duty of providing medical care for the discharged soldiers and sailors and authorized the acquisition of a number of additional hospitals. This will furnish wonderful opportunities for developing better methods of treatment and prevention of disease, especially tuberculous and neuro-psychiatric.

The review of the laws relating to Federal health activities will further show, as stated above, that several bureaus and divisions in several executive departments have been authorized by Congress to perform limited health functions in certain specific fields, for example, the Bureau of Chemistry, in so far as the Pure Food and Drugs Act relates to public health; the Children's Bureau, in so far as child welfare relates to health; the Bureau of Labor Statistics, in certain health functions in the matter of industrial diseases; the Bureau of Mines, in matters of health hazards in the mining industry; the Division of Vital Statistics, Bureau of the Census, in the matters relating to vital statistics; the Bureau of Entomology, in relation to the insect transmission of disease; the Bureau of Education, in the matter of school hygiene; and the Interdepartmental Social Hygiene Board in matters relating to the control of venereal diseases. Since

all of these functions are also authorized for the Public Health Service, there is an overlapping in the functions of those bureaus and divisions and the Public Health Service. There is also overlapping in the special fields of other bureaus. For example, the health of the child is often intimately related to industrial hygiene and to health hazards of the mining industry; and the Division of Vital Statistics overlaps all bureaus in so far as it is authorized to collect vital statistics which relate to the work of the other bureaus.

The confusion of effort and the duplication of work are not yet serious, for the bureaus are limited in their functions by their appropriations so that as yet they seldom cover the same field. Furthermore, they often cooperate with each other by agreement or detail of officers from one bureau to another. As an illustration, the Public Health Service has detailed officers to cooperate with the Bureau of Chemistry, Bureau of Labor Statistics, Children's Bureau, Working Conditions Service, War Risk Insurance Bureau, Employees Compensation Commission, Commission on Industrial Relations, Federal Board for Vocational Education, and others.

It can readily be seen that if the bureaus were provided with adequate appropriations their expansion would result in competition, jealousies, and duplication of work, with probable waste of Government funds.

The logical conclusion reached when one studies this question is to bring these several bureaus together and coordinate them under one administrative head. Obviously the several branches of public health work are so intimately related that the bureaus can not work to the best advantage in different departments. Infant hygiene fades imperceptibly into school hygiene, and school hygiene into hygiene of the child in industry. Public health is not a problem of separate age groups, racial groups, or occupation groups.

Without question one administrative head should have supervision over all of the civil Federal health activities. The necessity for this was realized during the war, and an executive order was issued July 1, 1918, placing civil health activities, except those exercised by the Bureau of Labor Statistics, under the supervision and control of the Secretary of the Treasury, through the Public Health Service.

Department of Health.

If all health activities are to be coordinated under one administrative head, the creation of a department of health with a Cabinet officer in charge, together with a transfer to it of all bureaus or parts of bureaus and divisions of the Government now engaged in such activities, is very generally considered the ideal method. Whether or not this is practicable at this time is a serious question. It is probable that both great parties will include such a policy in their

platform in the next presidential campaign; and if they do, the chances for a department of health will be brighter than at present.

In the creation of a department of health, all of the bureaus or parts of bureaus and divisions and boards could be easily adjusted without the loss of prestige by any of them. Some functions could be consolidated into single bureaus, others coordinated in existing or newly created bureaus. The plan should be constructive of the agencies we now have, certainly not destructive.

The Public Health Service, owing to its size and present organization, would constitute the main foundation upon which to construct such a department. Its mobile corps of medical and sanitary personnel is an excellent one to expand so as to include in the commissioned corps all of the scientists and specialists transferred from the other departments in grades according to the nature of the work and experience of each. Furthermore, some provision should be made to commission high-class specialists in the various branches of preventive medicine from civil life, in grades commensurate with their ability and experience.

The mobile corps as expanded should continue under the supervision of the surgeon general, and should perform all of the medical and sanitary duties for all of the bureaus and divisions of the department.

The mobile corps should be composed of grades corresponding to the rank of surgeon general, deputy surgeons general at large, assistant surgeons general at large, senior surgeons, surgeons, passed assistant surgeons, and assistant surgeons, the number in each grade depending upon the needs of the departments. The tenure of office of members of the mobile corps should be the same as that of the present commissioned medical officers of the Public Health Service, and they should be entitled to the same pay, commutation, and allowances as are given those officers. After the emergency needs of the present health requirements of the country are met the appointments in the mobile corps should be made only to the lowest grade, as is now done in the commissioned medical corps of the Public Health Service.

The provisions for one well-organized, disciplined mobile corps of highly trained health experts to perform all of the medical and sanitary duties for all of the bureaus and divisions will doubtless be an effective agency in coordinating the work of those bureaus. The free transfer of the personnel of the corps from duty in one bureau to that in another would make for unity of development and tend to keep the bureaus in greater harmony. The mobile corps would be a large one, but not so large nor so divided into special branches as to prevent the development of a corps spirit which would present a united front for the work of the whole department. Without such a

mobile corps each bureau would tend to develop separately, and instead of working in harmony there would spring up jealousies and competition with more or less duplication of work and waste of effort.

In the organization of the department there should be a secretary and assistant secretary, with the usual office personnel and accounting division. Under the general supervision of the secretary and assistant secretary there should be an executive office in charge of the surgeon general, and in this office there should be three divisions: (1) Personnel, (2) States' Relations, and (3) Scientific Research. Each division should be in charge of a deputy surgeon general. Under the general supervision of the executive officer there should be 12 bureaus, namely:

1. Mental Hygiene.
2. Child and School Hygiene.
3. Rural Hygiene.
4. Industrial Hygiene.
5. Foods and Drugs.
6. Public Health Information.
7. Sanitary Engineering.
8. Venereal Disease.
9. Tuberculosis.
10. Quarantine and Immigration.
11. Hospital and Relief.
12. Vital Statistics and Epidemiology.

The names of these bureaus indicate their functions. Each bureau should be in charge of an assistant surgeon general. The secretary and assistant secretary should be appointed by the President by and with the advice and consent of the Senate, in the same manner as other Cabinet officers and assistants are appointed. The surgeon general, deputy surgeons general, and assistant surgeons general should be appointed from the mobile corps for a limited term, under such tenure of office as will be to the best interest of the Government.

Upon the completion of duty in charge of the executive office or division or bureau, officers should be returned to the mobile corps in such grades as may be considered best. It is believed that this method of organization will tend to further unify the work of the department and promote efficiency in the scientific administrative heads.

I believe that this plan of organization of the departmental administration and the provision for a mobile corps will be better calculated to coordinate the Federal health activities than the plan of previous proposals to organize the department in independent bureaus and demobilize the present medical and sanitary corps of the Public Health Service. I can not believe that any plan should be proposed which does not utilize existing agencies to the best advantage.

Division of Health in an Existing Department.

If it is not practicable to obtain the ideal and create a department of health, I believe it would be practicable to transfer existing Federal health agencies to some existing executive department under an assistant secretary for health, and provide the same mobile corps and the same organization of executive office, divisions, and bureaus as have been described above for a department of health. The coordination which is so desirable in the future development of Federal health activities would be accomplished just as well in such a division of health as in a department. The prestige of such a division would probably not be so great as that of a department of health; but it would be a great step forward, and later, if the development warranted it, the division could readily be converted into a separate department.

Health Administration.

The transfer of all Federal health activities from the executive departments, and the creation of an independent organization to be known as "A Health Administration," without Cabinet representation, I do not believe is at all desirable. Without representation in the Cabinet, development will be slow and unsatisfactory. At least the experience of such independent agencies has not, up to the present time, been such as to offer much encouragement in this field. Such independent administration operated during the war with considerable success, backed by the patriotic cooperation of all the people; but could a health administration expect an order for a "health Sunday" to be as effective as the orders for gasless Sundays and meatless and wheatless days were during the war? The reversion of feeling is too great to base an argument for a health administration on the operation of the Food and Fuel Administrations during the war.

Expansion of Federal Health Activities.

In the discussion of the subject of the expansion of Federal health activities, I can do no better than quote from a speech made by the majority leader of the House of Representatives, Mr. Mondell, on the subject of Federal aid extension plan for the rehabilitation of industrial cripples. He said:

> So far as these duties and responsibilities are to be met and performed through governmental agencies, the primary responsibility is, of course, on the local and State governments. They are to a considerable extent responsible for the conditions which surround the citizen in his employment. They are on the ground and familiar with the conditions and armed with authority to deal directly with the situation.
>
> All this being true, it is natural that it be urged that as the responsibility is primarily that of the State and local community, as they are best qualified for the understanding and their citizens are those most directly interested, they should assume and perform a duty and responsibility so clearly theirs.

These arguments have much force with those who realize the importance of confining the activities of the Federal Government within proper bounds and the even greater importance of insisting that the States and their communities shall, for their own good and that of the people generally, continue to assume and exercise their local duties and responsibilities.

There is, however, a growing sentiment in favor of national leadership, stimulus, and direction in various lines in which the primary responsibility is local and in which the States and communities must wield the laboring oar, and that sentiment has been strongly expressed in behalf of legislation such as that now before us. Without minimizing State and local responsibilities for the rehabilitation and the restoration to lives of usefulness of those who suffer the accident of industry, humanitarians, welfare workers, labor leaders, captains of industry, and forward-looking folks of all classes have urged that the Federal Government assume a position of leadership and guidance in this work of practical humanitarian endeavor.

The bill provides not only for Federal encouragement and direction in cooperation with the States in the work of preparing those injured in industry for lives of further usefulness, but it also provides for Federal contributions toward this cooperative work. These contributions will, of course, encourage the States and the communities in the performance of their duty in this regard; but more important than any cash contribution is the fact that the National Government recognizes the importance of saving industrial cripples from lives of despair and dependence; of placing them in the way of self-help; of restoring them to a condition enabling them to do their useful part in the world's work. * * *

No man who ever occupied a seat in this House has spoken more frequently or more earnestly than I against undue and improper extension of Federal authority, jurisdiction, and control. But, gentlemen, I have learned something in the more than 20 years of my service here, and I trust I have grown with the growth of the sentiment of the country in favor of progressive legislation. I trust that I can see things in the light of to-day rather than from the viewpoint of the past.[1]

Later on in the discussion Mr. Mondell invited attention to the agriculture appropriation, which contained among other items the following:

Inspection and cure of scabies in sheep	$525,000
Control of tuberculosis in domestic animals	1,500,000
Control of hog cholera	500,000
Control of Texas cattle tick	750,000
Total	3,275,000

In closing he said: "Verily, I do not understand the philosophy of the gentlemen who insist we may properly do for swine what we may not do for humanity."[2]

The Lever rural health bill presented to the Sixty-fifth Congress is an example of the policy advocated by the Public Health Service in efforts to carry out its program of desirable health activities. On December 3, 1918, the Public Health Service presented to Congress a program for the "Conservation of Public Health," which sets forth in outline what the Service believes to be necessary in order to meet the urgent national needs and which will yield the maximum results

[1] Congressional Record, Oct. 11, 1919, p. 7134. [2] Congressional Record, Oct. 14, 1919, p. 7275.

in protecting national health and diminish the annual death toll taken by preventable disease. The program of the Public Health Service for the expansion of Federal health activities will be found in House Document No. 1539 of the Sixty-fifth Congress, third session (see appendix to this paper, p. 2772). This program is the goal for which the Public Health Service is aiming, and it is hoped that all persons interested in public health development will aid the Service in reaching its objective. We do not have to wait for the transfer of Federal health agencies into one department for this; all that the Service needs is men and money.

As stated before, for the investigation of the diseases of man and for the control of contagious and infectious diseases, the Public Health Service already has all of the authority which, under the Constitution, can be conferred by Congress. The greatest limitation is the amount of appropriation. Adequate expansion of the Service is limited only by the lack of money and men. Then, let us all unite to obtain health appropriations, and, when that is accomplished, I believe the coordination of existing agencies will be much more easily realized. If all health workers would get together and coordinate their efforts in backing up existing agencies, much more could be accomplished than by merely waiting for an ideal organization. Why wait? Use the means we have and results will come in large measure.

On the other hand, even should we obtain a department of health or an assistant secretary for health, with the transfers, we still would be confronted with the same necessity for appropriations, and the personnel problem would be just as difficult to solve as it is now. The greatest needs in Federal health activities are money and men.

In addition to the expansion of Federal health activities in the matter of extending Federal aid to State and local health agencies, the Federal Government has at least two other definite responsibilities:

1. International control of disease, and
2. Interstate control of disease.

For the international control it operates the maritime quarantine, and supplements this by the work of its consular service and the detail of Public Health Officers to the places which are likely to become a menace. For the interstate control of disease, the Federal Government, under several acts of Congress, undertakes certain measures, mainly through cooperation with State and local health authorities, and uses the Public Health Service for this purpose. In the past the Public Health Service has largely confined itself to measures of control after the disease needing control had gained a foothold in a State and had become a menace to other States. Under

more modern methods, however, it has realized that its activities should be aimed at these diseases long before they become a menace. As one example of the latter methods, the Service is enlarging the system of control of water supplies furnished to the traveling public by interstate common carriers. This control was first inaugurated January 25, 1913.

State and local health agencies have a vital interest in the interstate control of disease as well as the intrastate and intracommunity control.

With such closely related responsibilities why not form a joint partnership and work together for the one service—prevention of disease? For example, a case of typhoid fever in a remote rural district is a matter of joint interest to the county, State, and Federal health authorities. The typhoid germ does not recognize the county or State lines. It may find its way into intra- and interstate traffic and cause the loss of many human lives and the expenditure of large sums of State and Federal funds. The rational procedure would be to form the partnership and prevent or control all preventable diseases at their source. Such partnership would coordinate the work of Federal, State, and local health agencies, and I am sure all of us recognize the fact that there is just as urgent a necessity for this as there is for coordinating Federal health activities.

In the development of such a partnership we should not lose sight of the American principle of local self-government. The local health unit should therefore be organized on this principle by each locality; but the State and Federal Governments should bear a just proportion of the cost and exercise such supervision as will insure efficient service.

With proper coordination between Federal, State, and local health activities, with adequate expansion of the interstate operation of the Public Health Service, and with the Federal aid extension plan, a synchronous move can be made in all States for the control of disease.

Such unity of action will bring results, and public health workers will reach many of the objectives for which they have so long fought. Without unity of action and with internal dissensions we will make little progress, and the hope of reaching our objectives will fade.

APPENDIX.

Estimates and appropriations for public health work for the use of the Public Health Service for the fiscal year ending June 30, 1920. (Oct. 25, 1919.)

Name of fund.	Amount estimated for 1920.	Amount appropriated by Congress up to Oct. 20, 1919.
Pay of commissioned officers and pharmacists	[1] $450,000	[2] $425,000
Pay of acting assistant surgeons	[1] 175,000	[2] 150,000
Pay of other employees	[1] 370,000	[2] 350,000
Clerical help in bureau	[1] 46,500	[2] 46,485
Transportation	[1] 20,000	[2] 20,000
Maintenance of Hygienic Laboratory	50,000	27,000
Quarantine service	200,000	200,000
Epidemic fund	400,000	400,000
Field investigation and diseases of man	1,050,000	300,000
Prevention of interstate spread of disease	850,000	25,000
Rural hygiene	500,000	50,000
Control of biologic products	100,000	35,000
Control of venereal diseases	1,085,840	200,000
Studies in pellagra	30,000	30,000
Total	5,327,340	2,258,485

[1] This amount is one-half of the total fund estimated for this item for the whole Service.
[2] This amount is one-half of the total appropriation for this item for the whole Service.

LETTER FROM THE SECRETARY OF THE TREASURY TRANSMITTING INFORMATION AND RECOMMENDATIONS RELATIVE TO DEFICIENCY ESTIMATE OF APPROPRIATION FOR THE CONSERVATION OF PUBLIC HEALTH, TRANSMITTED OCTOBER 29, 1919.

[65th Cong., 3d sess., House Document No. 1539.]

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, December 3, 1918.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

SIR: Referring to the deficiency estimate of appropriations required by the Public Health Service, transmitted October 29, 1918, in the sum of $2,054,000, I have the honor to state that while the war has served to reveal the deplorable state of the public health and has emphasized the need of corrective measures, the signing of the armistice has not changed these conditions, the need for their correction being just as great, if not greater, than before.

All those interested in the public health are looking to this Government to stimulate and supplement measures for health protection, that recovery from the losses of war may be quickly effected and national health and efficiency increased.

I am inclosing a letter written to the President, which he has approved, which explains the present public-health situation at greater length and makes evident that the need for this appropriation exists in as great, if not greater, degree than ever.

I have, however, to request that the first item in the deficiency estimate transmitted October 29, 1918, be amended so as to provide

6 assistant surgeons general at large instead of 12, and 12 additional senior surgeons instead of 25, reducing the amount of the item from $54,000 to $26,500.

In order that the Congress may be advised of the nature of the responsibilities with which the Public Health Service is charged and the scope of the activities intended to be carried on, I attach herewith a memorandum which I heartily approve, prepared by the Surgeon General of the Public Health Service.

In view of the urgent need at this time of conservation of public health, I can not too strongly recommend that the items transmitted October 29, 1918, be included in the first urgent deficiency bill to be enacted at this session of Congress.

Respectfully,

W. G. McADOO,
Secretary.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, November 21, 1918.

The PRESIDENT,
The White House.

MY DEAR MR. PRESIDENT: Permit me most earnestly to invite your attention to the urgent need of including in the general program of after-the-war reconstruction the continuation and extension of measures for the general protection and improvement of the public health. The experience in this country since the declaration of war, as well as that in foreign countries, shows clearly the necessity for greater attention to this subject.

In this country the excessive mortality of infancy and childhood, diseases dependent upon polluted sources of water and food, occupational hazards, bad housing and insanitary community conditions, venereal diseases, tuberculosis, malaria all take their needless annual toll of thousands of lives.

The percentage of physical rejections during the draft shows how deeply these conditions have left their impress upon the population, over 34 per cent of all draft registrants having been rejected by examining boards on account of physical defects and diseases. For economic reasons, too, the need of conserving life and health is all the more urgent, in order to permit recovery from war losses in the shortest possible time and to render safe the development of new agricultural and industrial resources.

This view of the important part to be played by health measures in the future development of civilization is concurred in by the governments of foreign countries, for at the present time we find the British Government pledged to a great increase in the means of improving

and protecting the public health. In a recent address Lloyd-George refers to this as follows:

Recruiting statistics have revealed the terrible conditions as regards the physical health of the Nation. This is not due to poverty but to neglect.

The health of the people must be the special concern of the State.

Some time ago I submitted to you a war health program of the Public Health Service, which is comprehensive in its scope. It seems to me that, with slight modification, this program may well furnish a basis for an after-the-war program, to be applied to the country generally. It seems essential at this time that the Federal Government assume some measure of leadership in aiding and stimulating States, counties, and municipalities in improving their sanitary conditions, especially as the Public Health Service in its work of supervising sanitary conditions in extra cantonment and industrial areas has greatly extended and crystallized its experience in the best measures for improving the sanitary conditions of communities.

A short time ago you approved a deficiency estimate of an appropriation required by the Public Health Service of $2,000,000 to carry on health activities, the need of which was emphasized by war conditions. While the war has revealed the deplorable conditions of the public health and has accentuated the need of corrective measures, these conditions have not changed since the signing of the armistice, and the need for their correction is just as great, if not greater than ever.

I shall add that, by the passage of the act creating a Reserve of the Public Health Service, a flexible organization has been provided which may well be called into action during the emergency period of passing from a war to a peace footing. I have, therefore, to request that you reaffirm your approval of the deficiency estimate of appropriations required by the Public Health Service for $2,000,000, to be expended in the carrying out of the modified program herewith attached.

Cordially, yours,

W. G. McADOO,
Secretary.

Approved.

WOODROW WILSON.

WHITE HOUSE, *December 3, 1918.*

PROGRAM OF THE PUBLIC HEALTH SERVICE—INTENDED ESPECIALLY TO MEET AFTER-THE-WAR NEEDS.

This program meets urgent national needs by outlining health activities which are practicable and which will yield the maximum result in protecting national health and diminish the annual toll of

thousands of lives taken by preventable diseases and insanitary conditions. The success of this program will depend upon the active cooperation of Federal, State, and local health authorities. Experience has shown that this cooperation can best be secured on the Federal-aid extension principle.

1. Industrial hygiene:

(*a*) Continuing and extending health surveys in industry with a view to determining precisely the nature of the health hazards and the measures needed to correct them.

(*b*) Securing adequate reports of the prevalence of disease among employees and the sanitary conditions in industrial establishments and communities.

(*c*) National development of adequate systems of medical and surgical supervision of employees in places of employment.

(*d*) Establishment by the Public Health Service, in cooperation with the Department of Labor, of minimum standards of industrial hygiene and the prevention of occupational diseases.

(*e*) Improvement of the sanitation of industrial communities by officers of the Public Health Service, cooperation with State and local health authorities, and other agencies.

(*f*) Medical and sanitary supervision by the Public Health Service of civil industrial establishments owned or operated by the Federal Government.

2. Rural hygiene:

(*a*) Federal aid extension for establishment and maintenance of adequate county health organizations in counties in which the county and State governments, separately or together, will bear at least one-half (usually two-thirds) of the expense for reasonably intensive rural health work; county health officer to be given status in national health organization by appointment as field agent of the Public Health Service at nominal salary; sanitary inspectors and health nurses also to be given official status in the Public Health Service.

(*b*) Detail of specially trained officers of the Public Health Service to formulate and carry out, in cooperation with local authorities, intensive campaigns for the sanitation of groups of rural towns, the work to be directed especially toward securing safe water supplies, cleanly disposal of human excreta, pasteurization of milk supplies, and bedside control of cases of communicable disease.

(*c*) Studies by a special board of service officers to determine improved methods of rural sanitation, the studies to be confined to the most pratical and essential phases of the subject.

(*d*) Widespread dissemination of the simple rules for rural sanitation through various governmental and civil agencies, such as the bureaus and divisions of the Department of Agriculture, the Farm Loan Board, agricultural colleges, public-school boards, farmers' associations, and women's clubs.

3. Prevention of the diseases of infancy and childhood:

(*a*) Through cooperation with the Children's Bureau, the American Red Cross, and other recognized agencies in promoting measures for child and maternal welfare.

(*b*) Through prenatal care by promoting:

(1) The adoption of measures for the adequate care and instruction of expectant mothers through visiting nurses, prenatal clinics, lying-in facilities, attention during confinement, and regulation of the practice of midwifery under medical supervision.

(2) Safeguarding of expectant mothers engaged in industries.

(*c*) Through infant-welfare work, by promoting:

(1) The accurate registration of all births and measures for adequate care of babies in homes, welfare stations, and day nurseries.

(2) Instruction of mothers by visiting nurses. The enforcement of prophylactic measures to prevent blindness in the new born.

(3) Safeguarding of milk supplies and establishment of pasteurization plants.

(*d*) Through supervision of children of preschool age, by promoting:

(1) The organization of divisions of child hygiene in State and local health departments.

(2) Instruction by visiting nurses in general, personal, and home hygiene, and inspection for physical defects and the control of communicable diseases.

(3) The establishment of clinics for sick children.

(*e*) Through supervision of children attending school, by promoting:

(1) The supervision of the home and school environment, including sanitation of school grounds and school buildings.

(2) The maintenance of health supervision of school children by school nurses and school physicians to detect and correct physical and mental defects and to control communicable diseases.

(3) Mental examinations of school children to determine and prescribe suitable treatment and training for children who fail in class work.

4. Water supplies—National development of safe water supplies:

(*a*) By extending surveys already made by the Public Health Service of water supplies, checked by laboratory analyses when necessary, to be done by national, State, local, or university personnel and laboratories.

(*b*) Introduction and extension of methods of water purification according to results of surveys and analyses.

(*c*) Stimulation of communities to obtain safe water through National, State, and local representatives and volunteer organizations.

5. Milk supplies—National development of safe milk supplies through—

(*a*) Universal pasteurization (including adequate municipal supervision).

(*b*) Adequate inspection of production and distribution of milk and milk products.

(*c*) Stimulation of communities to obtain safe milk through national, State, and local representatives and volunteer organizations.

6. Sewage disposal—Proper sewage disposal will control intestinal diseases, such as typhoid fever, dysentery, diarrhea, and hookworm. These diseases now cause over 60,000 deaths annually. National development of safe methods through—

(*a*) Extension of water carriage sewerage systems wherever practicable.

(*b*) Elimination within municipal limits of cesspools and privies.

(*c*) In rural communities the installation of sanitary privies.

(*d*) The establishment of minimum standards of permissible pollution of streams, lakes, and rivers used for water supplies.

(*e*) Stimulation of communities to obtain safe sewage disposal through national, State, and local representatives and volunteer organizations.

7. Malaria—National development of measures for the control of malaria and malaria-bearing mosquitoes in industrially, agriculturrally, and economically important areas of the United States—

(*a*) By the further dissemination of the knowledge of methods for its control (elimination of malaria-mosquito breeding places through drainage, oiling, ditching, and the like) now being demonstrated by the Public Health Service.

(*b*) By the extension throughout the country of surveys of certain areas as to the prevalence of malaria and malaria-bearing mosquitoes.

(*c*) By increasing the corps of experts of the Public Health Service engaged in malaria prevention and by the utilization of other national agencies wherever practicable to advise the communities as to the methods for best handling their problems in malaria.

(*d*) Additional appropriations for the reclamation of large areas from malaria through proper drainage. Funds for such projects should be supplied on a 50–50 basis by Federal and State Governments. This plan is especially applicable to the control of malaria in communities where malaria conditions interfere with their economic development.

8. Venereal diseases:

(*a*) Medical measures—

(1) Establishment of clinics, dispensaries, and hospitals.

(2) Epidemiological studies.

(3) Free diagnosis.

(4) Examination for release as noninfective.

(5) Free distribution of arsphenamine.

(6) Control of carriers through detention and commitment.

(*b*) Educational measures—

(1) Proper reporting of cases.

(2) Standardization of pamphlets, exhibits, placards, and lectures.

(3) Cooperation with national, State, and local authorities, and volunteer associations.

(4) Cooperative work in industrial plants, shipyards, and railway employees' organizations.

(5) Cooperation with druggists' organizations to secure their voluntary aid in the control of patent nostrums for the treatment of venereal diseases.

9. Tuberculosis:

(*a*) Stringent provisions for the proper reporting of cases of tuberculosis.

(*b*) Adequate instruction of families and patients, especially in families where there is an advanced case.

(*c*) Hospitalization of cases wherever practicable, either through city institutions or by arrangements with State or district tuberculosis hospitals.

(*d*) Cooperation with national societies and agencies having for their object the prevention of tuberculosis or the improvement of economic conditions.

(*e*) Improvement of industrial conditions predisposing to tuberculosis, such as "dusty occupations."

10. Railway sanitation:

(*a*) Consolidation under supervision of the Public Health Service of railway sanitation.

(*b*) Protection of railway employees by adequate health measures (e. g., protection against smallpox and typhoid fever by vaccination and inoculation; supervision of food, water, and milk supplies consumed by employees; elimination of health hazards in shops and other work places; supervision of sanitary housing facilities; sanitation of railway communities).

(*c*) Protection of the public by—

(1) Sanitary supervision of water, milk, and food supplies furnished by railway administration.

(2) Sanitary supervision of employees engaged in handling water and food supplies so furnished.

(3) Sanitation of stations, terminals, rights of way, with special reference to sewage disposal, malaria-mosquito eradication, and screening against insects bearing disease.

(4) Prevention of the spread of communicable diseases through common carriers.

(5) Improvement and regulation of ventilation of passenger coaches and railway tunnels.

11. Municipal sanitation:

(*a*) Development and demonstration of the principle of employing full-time health officers by all municipalities.

(*b*) Enactment and enforcement of ordinances for adequate disease reporting.

(*c*) Provision for safe water, food, and milk supplies and sewage disposal.

(*d*) Enactment and enforcement of special regulations for the improvement of conditions causing tuberculosis.

(*e*) Establishment of community health centers.

(*f*) Municipal campaign for the control of venereal diseases through venereal-disease reporting; clinics for the treatment and control of carriers, and free treatment for all cases.

(*g*) Control of malaria and malaria-bearing mosquitos in malarious regions.

(*h*) Enactment of proper building ordinances and provision for sanitary supervision of housing, especially in industrial centers, including improvements in transportation, so as to permit redistribution of persons living in overcrowded communities.

(*i*) Adequate systems of medical supervision of schools.

(*j*) Reduction of infant mortality by proper organization for prenatal care, bed space in maternity hospitals, and infant-welfare stations, visiting nurses, and milk and ice stations.

(*k*) Stimulation of municipalities to realize their own responsibilities for health, and the part played by adequate health protection in the happiness and material prosperity of the community.

12. Health standards:

(*a*) Communicable diseases. Promulgation by the Public Health Service of minimum standards for the control of communicable diseases.

NOTE.—The service has published on this subject a report of committee of the American Public Health Association, upon which the service was represented. This report should be reviewed and amended by a board of service officers. It should then be formally approved by the conference of State and Territorial health officers with the Public Health Service, and be promulgated by the Public Health Service as Federal standards.

(*b*) Industrial hygiene. Standards of industrial hygiene and sanitation of places of employment should be prepared by the service in cooperation with the Department of Labor.

(*c*) Sewage and excreta disposal. Minimum standards should be promulgated on the following:

(1) Water-carriage sewerage systems.

(2) Sanitary privies.

(*d*) Standard specifications for safe water and water purification.

(*e*) Community sanitation. Preparation of standard methods for scoring the sanitary condition of communities.

(*f*) Preparation of additional standards for the manufacture and the purity and potency of biological products and for arsphenamine.

(*g*) Preparation of standards for illuminating, heating, and ventilating public buildings and schools.

13. Health education—To increase the knowledge of the general public on means relating to disease prevention and personal hygiene:

(*a*) By the employment of medical sanitarians, having special experience in educational methods and their use, in cooperation with Red Cross National and State organizations, State and municipal health departments, State industrial commissions, and State and National health associations.

NOTE.—The prevention of the following conditions and diseases will be the special objects of health education: Excessive infant mortality, occupational diseases (see section on industrial hygiene), malaria, typhoid fever, hookworm, venereal diseases, pellagra, tuberculosis, pneumonia, cerebrospinal meningitis, and personal hygiene.

(*b*) By advocating and assisting in the securing of full-time State, district, and local health officers.

(*c*) By stimulation of States and municipalities to the acceptance of their full responsibility for public-health conditions and the support of health activities by adequate appropriations.

(*d*) By the detail of service officers to State health organizations and, when necessary, to city organizations, particularly in communities presenting special health problems.

14. Collection of morbidity reports—Extension of disease reporting to be accomplished through the collection of adequate reports of disease prevalence:

(*a*) By the extension of the present system of collaborating epidemiologists.

(*b*) For the industrial group of the population, through the appointment of industrial surgeons and record clerks in various industrial establishments, such industrial surgeons to be appointed by the Public Health Service, at a nominal salary, so as to place them under the direction and control of the service, and the remainder of the salary to be paid by the industrial establishments to which they are attached. In addition to reporting disease, these surgeons will act as medical and surgical officers and sanitarians. They will also report on community sanitation.

15. Organization and training for duty in emergency of the reserve of the Public Health Service:

(*a*) By the establishment of training schools in public-health work in connection with stations of the Public Health Service and leading universities at which members of the reserve may receive intensive training for short periods at stated intervals.

(b) Ordering members of the reserve to active duty to participate in important field work of the Public Health Service.

In order to carry this program into effect the following additional personnel of the Public Health Service is needed:

Industrial hygiene	120
Rural hygiene	200
Prevention of diseases of infancy and childhood	100
Interstate water supplies	20
Milk supplies	15
Malaria:	
Sanitary engineers	20
Epidemiologists	10
Venereal diseases:	
Control in States	88
Control in clinics	240
Tuberculosis investigations	20
Health education	10
Total	843

TREATMENT OF MALARIA AMONG BRITISH TROOPS IN FRANCE.

The following account of the care and treatment of cases of malaria among the British troops in France during 1918 is taken from a report by Col. Ronald Ross, consultant in malaria, British War Office and Ministry of Pensions.[1]

"During 1918, 20 battalions of British troops, all more or less heavily infected with malaria, were transferred from Eastern fronts to France. On arrival in France from July onwards all these battalions were found to be too ill for the firing line and were therefore put into camps (generally canvas) within the same area, and were then subjected to a strict course of quinine combined with exercise, all under rigid discipline. The course lasted about ten weeks; and the result of it was so beneficial that when it was concluded all the units were able to enter the firing line, where they did distinguished work. The following are the details of the course:

"1. All the officers and men of every battalion, whether they were known to be infected with malaria or not, were subjected to the whole course.

"2. The quinine was given daily on parade, if possible at 11 a. m., or at 2 p. m., under the supervision both of the regimental and of the medical officers; and great care was taken that no one should escape his dose.

"3. Either the sulphate or the hydrochloride of quinine was allowed; but these salts were always given in solution by the mouth.

[1] Lancet, May 10, 1919, pp. 780-781.